

AK

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 18

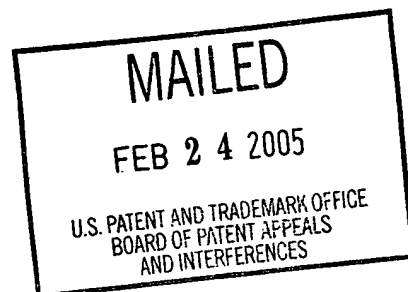
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ELI LEVY

Appeal No. 2004-0256
Application 09/531,821¹

ON BRIEF



Before BARRETT, GROSS, and LEVY, Administrative Patent Judges.

BARRETT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) from the final rejection of claims 1-40. Claims 2-6, 21, 24, 25, and 31 are indicated to be objected to in the answer (page 2). Thus, the appeal involves claims 1, 7-20, 22, 23, 26-30 and 32-40.

We affirm-in-part.

¹ Application for patent filed March 21, 2000, entitled "Server Monitoring Virtual Points of Presence."

BACKGROUND

The invention relates to a system and method for monitoring the operation of a Web site as experienced from multiple user locations on a computer network such as the Internet. The prior art addressed this problem by providing a Web site monitoring system in which agent computers are set up at selected Internet connection points. The agent computers run special monitoring software that causes the agent computer to periodically access the target Web site as a simulated Web site user, and to monitor the Web site's response time. The agent computers report the resulting performance data (response time measurements and other performance parameters) over the Internet to a centralized database. A significant problem is the cost of setting up and maintaining agent computers in many different geographic regions.

The present invention overcomes this problem by setting up the agent computers in one of more centralized "data centers," rather than deploying an agent computer at each of the geographic locations. These centrally located agent computers are connected to the remote Internet connection points via dedicated communication links. These geographically distributed Internet connection points are referred to as "virtual points of presence" or VPOPs. A benefit is that the agent software resides on computers in the one or more central data centers, rather than on computers in each of the various geographic locations. Thus,

Appeal No. 2004-0256
Application 09/531,821

there is no need to deploy and maintain agent software or other monitoring components within each of the various geographic locations for which end user performance is to be monitored. The cost of setting up and maintaining the monitoring system is reduced.

Claim 37 is reproduced below:

37. A system for monitoring a web site from multiple geographic locations, the system comprising:

a data center comprising at least one computer system programmed to access and monitor the web site; and

a plurality of Internet connection points, each of which is located at a different respective one of said multiple geographic locations, at least some of the Internet connection points being geographically remote from others and from the data center;

wherein the data center sends request messages to the web site, and receives response messages from the web site, through the plurality of Internet connection points to monitor the web site as seen by users in each of the multiple geographic locations.

THE REFERENCES

The examiner relies on the following references:

Chen et al. (Chen)	5,812,780	September 22, 1998
Boss et al. (Boss)	6,157,618	December 5, 2000
		(filed January 26, 1999)

THE REJECTION

Claims 1, 7-20, 22, 23, 26-30, and 32-40 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Boss and Chen.

We refer to the final rejection (Paper No. 11) (pages referred to as "FR__") and the examiner's answer (Paper No. 14) (pages referred to as "EA__") for a statement of the examiner's rejection, and to the brief (Paper No. 13) (pages referred to as "Br__") and reply brief (Paper No. 15) (pages referred to as "RBr__") for a statement of appellant's arguments thereagainst.

OPINION

Grouping of claims

Claims 2-6, 21, 24, 25, and 31 are objected to (EA2). Appellant also argues both claims 1 and 23 separately in Group 4, so Group 4 will be divided into two groups. Thus, appellant's grouping of claims is modified as follows:

- Group 1: Claims 37-40 stand or fall with claim 37.
- Group 2: Claims 12-20 and 22 stand or fall with claim 12.
- Group 3: Claims 30 and 32-36 stand or fall with claim 30.
- Group 4a: Claims 1 and 7-11 stand or fall with claim 1.
- Group 4b: Claims 23 and 26-29 stand or fall with claim 23.

Content of the references

The abstract of Boss describes the invention:

Geographically distributed data-gathering client computers are connected to the Internet in the same manner as typical users (e.g., via local dial-up connections). The data-gathering client computers poll a central server (the "UserMon" server) for a target site to access. After receiving the address of a target site from the UserMon server, the data-gathering client computers access the target site and obtain performance-parameter values indicative of the quality of their respective Internet connections to the target site and/or the performance of the target site itself. Each data-gathering client computer then pushes the performance-parameter values back to the "UserMon" server for analysis.

The Boss network is shown in Fig. 4, including the "UserMon" (user-experience monitoring system) server 401, a target site (bookstore 110), and data-gathering clients 402-405.

Chen describes a method and system for assessing the performance (response time to users) of a server application. Figure 1 shows a typical client-server arrangement with 200 client computers connected to a server computer via a LAN. It would be expensive to measure response time in this configuration in terms of manpower and equipment (col. 2, lines 43-45). Chen employs a "LoadSim" client to simulate several hundred e-mail clients (users) to provide realistic load simulations (Fig. 2; col. 4, line 66, to col. 5, line 20). Times for completion of tasks are stored in a log file (col. 15, lines 36-38). Major advantages are the reduced hardware requirement for simulating a specified number of clients and that fewer human operators are required to run user simulations (col. 8, lines 36-42).

The rejection

As to independent claim 1, the examiner reads the claimed "monitoring location" on the UserMon server 401 of Fig. 4 of Boss; reads the claimed "server system" whose access is being monitored on the bookstore server 110; reads the "first request message" on the communication from the UserMon server to one of the data-gathering clients 402-405, say client 402 in Fig. 4, at a "first network access location"; and reads the "second request

message" on the communication from the UserMon server to another one of the data-gathering clients, say client 405 in Fig. 4, at a "second network access location." The examiner finds (EA5), without explanation, that user access is "monitored without the need for monitoring components local to the first and second network access locations." The examiner finds that Boss does not explicitly teach "at a monitoring location, generating first and second request messages that represent requests from users of the server system" and "at the monitoring location, monitoring responses received from the server system to the first and second request messages," but finds that Chen teaches that the LoadSim client generates first and second request messages that represent requests from users of the server system. The examiner concludes that it would have been obvious to modify Boss to include the steps of generating, at a monitoring location, first and second request messages that represent requests from users (EA6).

The examiner relies on the analysis of claim 1 for the rejection of independent claims 12, 23, and 30. As to claim 37, the examiner reads the UserMon server of Boss on the claimed "data center" and the data gathering client computers on the "Internet connection points" (EA10).

Group 1: Claims 37-40

Appellant observes that the examiner did not provide a separate analysis of claim 37 in the final rejection, but relied on the analysis of claim 1 (Br9). Based on the rejection of claim 1, appellant assumes that the examiner interprets the "UserMon" server of Boss to correspond to the claimed "data center" and that the data gathering client computers represent the "Internet connection points" (Br9). The examiner's analysis in the examiner's answer reflects this interpretation, where the examiner also relies on the LoadSim as a data center (EA10).

Appellant notes that claim 37 recites that "the data center sends request messages to the web site, and receives response messages from the web site, through the plurality of Internet connection points to monitor the web site as seen by users in each of the multiple geographic locations." It is argued that the UserMon of Boss does not either send request messages to the Web site being monitored, or receive response messages from the Web site being monitored, and cannot be treated as the "data center" recited in claim 37 (Br9). It is argued that in Boss, "the task of sending request messages to the web site, and receiving responses to such request, is performed by the data-gathering clients and not by the UserMon server 401" (RBr3). It is argued (Br9) that Chen fails to disclose or suggest a data center because neither the LoadSim client nor any other component

"sends request messages to [a] web site, and receives response messages from the web site, through [a] plurality of Internet connection points [in different respective geographic locations] to monitor the web site as seen by users in each of the multiple geographic locations," as claimed.

We do not find where the examiner specifically responds to appellant's argument. Nevertheless, we have tried our best to determine whether the rejection is supported. Perhaps the best argument is that claim 1 is an open-ended claim (due to the transition word "comprising") and does not exclude data-gathering client computers at the points of presence (POPs); i.e., it does not recite that the system "monitors the performance of [a] server system as seen from multiple user locations without the need for performance monitoring components local to said user locations" as in claim 12. In Boss, the UserMon server 401 instructs the data-gathering client 402 to get client-specific files from the UserMon server (col. 5, lines 4-27). The clients use these instruction files to access specified target sites and monitor their performance and "log" the performance-parameter values by sending them to the UserMon server (col. 6, lines 12-21). It possibly could be said that the UserMon server "sends request messages to the web site" (claim 37) indirectly via the data-gathering clients, but actually it appears that the UserMon only sends a list of target sites to the data-gathering

Appeal No. 2004-0256
Application 09/531,821

clients and that it is the data-gathering clients that send the requests. In any case, a data-gathering client "receives response messages from the web site" (claim 37) and calculates the performance parameters and passes on the performance values, not the "response message," to the UserMon server. Thus, Boss does not meet claim 37. Chen discloses a single LoadSim client to simulate many clients to an exchange server 30, but all the requests go between a single client and a single server and there is not a plurality of connection points. It is not clear how the examiner proposes to modify Boss in view of Chen to arrive at the claimed invention since modification of Boss to eliminate the data-gathering clients and have only the UserMon server would be contrary to the distributed client computer teaching of Boss. We conclude that the examiner has failed to establish a prima facie case of obviousness as to claim 37. The rejection of claims 37-40 is reversed.

Group 2: Claims 12-20 and 22

Appellant argues that Boss and Chen do not disclose or suggest a system that "monitors the performance of [a] server system as seen from multiple user locations without the need for performance monitoring components local to said user locations," as recited in claim 12 (Br10). It is argued that Chen and Boss measure the performance (response times) of the target server system only as seen from the location or locations of the

Appeal No. 2004-0256
Application 09/531,821

client/agent computers that execute the associated performance monitoring software (Br10). "Specifically, Chen's system measures server response times as seen from the client computer that runs the LoadSim client; and Boss's system measures server response times as seen from the data gathering computer. Neither reference discloses or suggests a mechanism that would allow a server's performance, as seen from multiple user locations, to be monitored without the need to install and run monitoring software in such user locations." (Br10.)

The examiner states that the limitation can be interpreted broadly "as the measured performance monitoring is performed remotely from multiple user locations, i.e., the measured performance monitoring can be done in the (target) server system itself or in any computers remote from the multiple user locations" (EA12). The examiner finds that Boss teaches using geographically distributed data-gathering client computers at multiple user locations to access a particular target site, to obtain performance-parameter values indicative of the experience of a typical user accessing the target site, and to then forward the performance-parameter values to the UserMon server (EA12). It is stated that the UserMon server analyzes the received performance-parameter values without the need for performance monitoring components local to said user locations (EA12).

Appeal No. 2004-0256
Application 09/531,821

We interpret the examiner's argument to be that the "performance monitoring component[]" (claim 12) is the UserMon server. However, it is clear that the data-gathering client computers in Boss are "performance monitoring components local to said user locations" (claim 12). Boss states that "[t]he data-gathering client monitors (step 807) the Internet connection and obtains performance-parameter values indicative of a user's experience accessing the site" (col. 6) and describes that it is the clients that measure the performance-parameter values such as full-page download time (col. 6, line 54, to col. 7, line 31) and the page script download time (col. 7, lines 32-54). That is, the performance monitoring is done at the data-gathering client computers local to the user locations and not at the UserMon as asserted by the examiner. Thus, the examiner has failed to show that the combination teaches the limitation of a system that "monitors the performance of [a] server system as seen from multiple user locations without the need for performance monitoring components local to said user locations" (claim 12).

Appellant also argues that Boss and Chen fail to disclose or suggest the configuration in the first three subparagraphs of claim 12. It is argued (Br11) that the data-gathering client computers of Boss are not "locally interconnected at a central location," as claimed. It is also argued that the dial-up connections of Boss do not connect the data-gathering computers

to access points in "respective user location[s] that [are] geographically remote from the central location" because the data-gathering computers are connected only to ISPs within their respective local geographic area (Br11).

We do not find where the examiner addresses these arguments. Boss does not disclose "a plurality of agent computers that are locally interconnected at a central location" because the agent computers are the geographically distributed data-gathering client computers. Also, there is no "communications link" between agent computers at a central location and a network access point.

For the reasons stated above, we conclude that the examiner has failed to establish a prima facie case of obviousness. The rejection of claims 12-20 and 22 is reversed.

Group 3: Claims 30 and 32-36

Appellant argues (Br11) that Boss and Chen fail to disclose or suggest the claimed "dedicated communications link that connects the agent computer to an Internet point of presence that is geographically remote from the agent computer" because neither the path from the UserMon server and the data gathering computers of Boss, nor the dial-up connections between the data-gathering computers and their ISPs, represent such a dedicated link.

The examiner responds that appellant does not explicitly define the term "dedicated communications link." The examiner

states that Boss teaches that the computers (presumably referring to the data-gathering client computers) need not connect to the Internet via dial-up connections, but may connect in other ways, which the examiner states can be leased dedicated links (EA13).

We agree with the examiner that Boss discloses that the data-gathering clients may connect to the Internet in any way. "It will be appreciated that the network connections shown are exemplary and other means of establishing a communications link between the computers may be used.... The data-gathering clients may, for example, connect to the Internet via cable TV connections, fiber optic connections, and wireless satellite connections. This invention may be used in cases where the connection to the Internet via any connection that provides dynamic IP addresses (as opposed to static IP addresses)." (Boss, col. 18, lines 40-53.) Thus, we agree that it would have been obvious to one of ordinary skill in the art that the communications link between the data-gathering client computers and the Internet could be a dedicated link. With this understanding, we read the claimed "agent computer" on the data-gathering client computer in Boss and read the claimed "Internet point of presence that is geographically remote from the agent computer" on the point where the communication link from the data-gathering client computer connects to the Internet. The data-gathering client computer "monitors performance of the

Appeal No. 2004-0256
Application 09/531,821

Internet server system as seen from the geographically remote Internet point of presence" as recited in claim 30. The data-gathering client computer uses IP addresses associated with the Internet point of presence and all forward and reverse message traffic between the agent computer and the Internet server system flows across the dedicated communications link. Thus, we do not agree with appellant's argument that Boss and Chen do not disclose or suggest an agent computer that "is configured to use IP (Internet Protocol) addresses associated with [a geographically remote] Internet point of presence, such that all forward and reverse message traffic between the agent computer and the Internet server system flows across the dedicated communications link," in the context of the other claim limitations (Br12).

We conclude that the examiner has established a prima facie case of obviousness, which has not been shown to be in error. The rejection of claims 30 and 32-36 is sustained.

Group 4a: Claims 1 and 7-11

Appellant argues that neither Boss nor Chen discloses or suggests a system in which user access to a server system as experienced by users local to first and second network access locations "is monitored without the need for monitoring components local to the first and second network access locations," as recited in claim 1 (Br12). Appellant makes the

Appeal No. 2004-0256
Application 09/531,821

same arguments as made for claim 12. We assume that the examiner's reasoning is the same as for claim 12.

For the reasons discussed in connection with claim 12, we conclude that the references, either alone or in combination, do not teach or suggest that user access "is monitored without the need for monitoring components local to the first and second network access locations." The rejection of claims 1 and 7-11 is reversed.

Group 4b: Claims 23 and 26-29

Appellant argues that neither Boss nor Chen discloses or suggests a method in which "the performance of the server system as experienced from the network access location is measured without a need for an performance monitoring components at the network access location," as discussed with respect to claim 1.

For the reasons discussed in connection with claim 12, we conclude that the references, either alone or in combination, do not teach or suggest a method in which "the performance of the server system as experienced from the network access location is measured without a need for an performance monitoring components at the network access location." The rejection of claims 23 and 26-29 is reversed.

Appeal No. 2004-0256
Application 09/531,821

KNOBBE MARTENS OLSON & BEAR LLP
2040 MAIN STREET
FOURTEENTH FLOOR
IRVINE, CA 92614